What is claimed is:

1. An antenna structure for an inductively coupled plasma generator, the antenna structure having a powered end to which RF power is applied and a ground end connected to the ground, wherein at least two loop antenna elements are disposed electrically in parallel with each other, the powered ends and ground ends of the respective antennas are disposed symmetrically with respect to the center of the antennas, and the antennas crossing each other such that the powered ends and ground ends thereof are disposed at a part far from a chamber and central parts thereof are disposed at a part close to the chamber.

2. The antenna structure according to claim 1, wherein the respective antennas cross each other vertically.

3. The antenna structure according to claim 1, wherein the respective antennas concentrically cross each other horizontally.

4. An antenna structure for an inductively coupled plasma generator, wherein an internal antenna and an external antenna, each rectangular shaped, are parallel connected to each other, the internal antenna being installed such that two rectangular antenna elements are symmetrically superposed in two-ply loops, and the external antenna being installed such that four L-shaped antenna elements, each having two sides, are symmetrically disposed in two-ply loops, and wherein each powered end is disposed farthest from the chamber and each ground end is disposed near to the chamber.